

LB
1725
.A8H3

LIBRARY OF CONGRESS.

Chm. LB172.5
Copyright No.

Shelf. A8H32^a

UNITED STATES OF AMERICA.









Columbia University. Teachers College.

EDUCATIONAL MONOGRAPHS

PUBLISHED BY THE

NEW YORK COLLEGE FOR THE TRAINING OF TEACHERS

NICHOLAS MURRAY BUTLER, EDITOR.

VOL. II. No. 3.

{ Entered at the Post Office at New York
City as second class matter.

} WHOLE No. 9.

THE TRAINING OF TEACHERS

IN

AUSTRIA

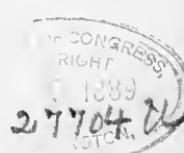
BY

Marx
E. HANNAK, Ph.D.

Director of the *Pädagogium* at Vienna.

MAY, 1889.

NEW YORK: 9 UNIVERSITY PLACE.
LONDON: THOMAS LAURIE, 28 PATERNOSTER ROW.



ISSUED BI-MONTHLY]

[\$1.00 PER ANNUAL]

LB 1725
A8H3

Copyright, 1889,
COLLEGE FOR THE TRAINING OF TEACHERS.

Entered at Stationers' Hall.

EDITOR'S PREFACE.

It is a pleasure to be able to place before American and English teachers so clear and concise an account of the training of teachers in a foreign country as Dr. Hannak has kindly consented to prepare for the Educational Monograph series. In the United States the provision made for the training of teachers is insufficient and lamentably defective. Our colleges are in large measure to blame for this state of affairs, for they have almost uniformly neglected to recognize pedagogics as worthy of a place in the curriculum and so have contributed to the spread of the utterly false notion that any one who possesses a fair knowledge of subject matter is competent to teach it, particularly to young children. Even Hrabanus Maurus with his *scientiæ plenitudinem et vitæ rectitudinem et eruditio-* *nis perfectionem*, had a higher ideal than this. Added to this is the fact that the majority of our normal schools, both public and private, have made pretensions far beyond the knowledge and ability of those engaged in them to support. The result has been a very low standard of professional efficiency and a correspondingly low tone in educational thought and educational journalism. Recently more encouraging signs have appeared and earnest men and women, East and West, are determined that improvement and development must take place. Even to-day this movement is gathering force and will eventually sweep from its track the lingering products of ignorance and bigotry. Dr. Hannak's paper is offered as a contribution to the literature of this movement.

It has been translated from the German by Edgar D. Shimer, Ph. D., Assistant in Pedagogy in the University of the City of New York, and the Translator's Introduction adds very materially to the value of Dr. Hannak's paper for American readers.

TRANSLATOR'S INTRODUCTION.

Dr. Hannak's masterly presentation of the nature, the necessity and the conditions of professional training for public school teachers in Austria is peculiarly pertinent to the vexed question of discriminating and synthetizing the various plans of pedagogic training now in vogue in the United States. Wide comment on the argument and the statement of facts is altogether unnecessary on the part of the translator, the one being logical and cogent, the other clearly detailed in close sequence. He has therefore chosen simply to collate a few relevant facts the need of which thrust itself upon his attention, and to reveal some of the reflections indulged in doing the work of translating, in the hope that better thoughts may be suggested or contrary opinions provoked, to the discernment and establishment of truth that shall redound to the well-being of public school teachers in all lands.

Pedagogically we are in process of evolution, therefore it behooves us to consider carefully the conditions of our own growth and the factors both internal and external necessary to produce a sufficient supply of fully equipped and well-trained teachers for public school work. Argument is no longer necessary to establish the truth that if it is the duty of the state to educate its children it is equally incumbent on it to provide means for the adequate training of the teachers selected to carry out the plans prescribed for the development of citizens. As the state sows, so will it also reap. The tendency has been toward large appropriations for our public normal schools. Still the demand for trained teachers has been so pressing that private institutions have in large measure undertaken the work. Of the 263 normal schools now in existence, 132 are under private auspices with about 23,000 students an

nually enrolled and 1300 annual graduates. The 131 public normal schools register 32,000 students and graduate about 3000 annually. Nearly all of the states report normal schools as separate institutions or as departments of universities or colleges. It is agreeable to note that the West keeps equal pace with the East in this matter and that within a recent period normal schools have multiplied rapidly in the South. City normal schools exist in most of the large cities, all of which differ in organization and conduct according to the varying conditions. Some are strictly professional; others combine academic and professional courses. There is great difference of opinion as to the proper choice.

In 1852 the Boston Normal School was organized on the former plan. After a time certain high school studies were introduced and in less than fifteen years the professional training became secondary. In 1872 the school was reorganized on a strictly professional plan and this action was approved by men like Harrington, Kiddle, Harris, Philbrick and others. In 1876 Superintendent Philbrick succeeded in completing an organization which provided professional training in theory and practice for candidates who had completed a high-school course. By connecting with his normal school a large grammar school for boys and a mixed primary school he gained opportunity for giving actual work in the school room as a part of the pupil teacher's course.

The St. Louis Normal School also became strictly professional in 1880 and is provided in like manner with a school of observation and practice.

In the New York and Philadelphia Normal Schools academic and special training are pursued, inasmuch as these cities have no high schools for girls. Superintendent Philbrick's observation in his annual report of 1876 shows this great educator's power of foresight. He said "In the New York and Philadelphia schools where the

general education and the special training are carried on simultaneously we observe the gradual evolution of the distinctively professional department, composed of the post-graduate pupils. As soon as such a department is clearly differentiated as is the case with the normal department of the San Francisco school, it only remains to place this department under a competent master wholly devoted to its management and training, and we have the realization of the ideal type of the normal school."

Wherever academic training is entered upon in normal schools, pupils are admitted at fourteen years of age though their special training does not begin until two years later, the course being from two to four years in length. In the other class of schools women are not admitted until sixteen, nor men until seventeen years of age, the course extending from one to two years. Superintendent Andrew S. Draper of New York State is of the opinion that less time should be spent with foundation work, that no pupil should be received unless fairly educated and that larger results might be accomplished by confining the work to special training in methods and practice.

This running outline of a few main points concerning our normal schools may serve to throw side light upon the detailed statement of facts by Hannak regarding the training of teachers in Austria in general and in his admirably planned *Pädagogium* in particular.

The teachers' Seminaries in Germany spoken of by Dr. Hannak require all candidates to make special preparation for admission. In Prussia pupils are admitted at seventeen and not above twenty-four. The first year is devoted to bringing the students into intellectual harmony, no practice being allowed in the annexed schools. The second class pursues the regular schedule and enters upon practice work. Both these classes spend twenty-four hours weekly in their own lessons. The third class studies fourteen hours a week and each member must spend not less

than six nor more than ten hours a week in practice work covering all the studies of their schedule. At the end of this course the student who passes the examination receives a provisional certificate. From two to five years later upon a second examination he may receive a full certificate.

In Saxony candidates are admitted directly from the public schools at fourteen years of age, but the first three years' course covers the preparatory course required in Prussia for admission to the seminary.

Dr. Hannak, it will be noticed, lays great stress upon post-graduate work and insists upon further self-development on the part of the teacher. How this can be accomplished by the teacher who is at the same time engaged in actual teaching, is lucidly set forth. The distinct claim is made that the *Pädagogium* is an institution unique of its kind, differing widely from the training colleges attached to the universities of Germany. Dr. Stoy, late the lecturing professor and principal of the Training College at the University of Jena, insisted that reform of schools is impossible without a reform of the training system for teachers. Under his influence the government in 1876 re-organized this training college according to Dr. Stoy's plan, in which there is evident recognition of the importance of preventing any further breach between the teachers of the lower and the higher schools, a state of affairs so lamentable in Great Britain, but which is likely to be healed over when training colleges are affiliated to the universities as they have been in Germany. It may be profitable to compare the following courses, by Dr. Stoy, with the outline given by Dr. Hannak.

"FIRST COURSE.—Principles and theory: (1) In order to avoid and prevent all mechanical cramming and superficial varnish in the place of a thorough education, the training college student has to work his way through the whole system of philosophic pedagogics. Thus he be-

comes acquainted with the leading ideas and aims for teaching work, discipline and health. (2) He has to study psychology to enable him to find the proper ways and means of dealing with his pupils. (3) In order to find examples and models for his vocation he also studies the history of education.

"SECOND COURSE.—Practical training: (1) The practical application of theory consists in the training college student's learning how to control himself in his didactic intercourse with the pupils. (2) For this purpose a complete school of several classes or forms must be attached to the training college. (3) Every student is directed and guided in his teaching work in one special form and later on in all the forms and all the branches gradually. (4) Every student works out a plan or programme for every lesson he is going to give and hands it over to the principal for approval. (5) During the class work other students and the principal himself are present. (6) The teaching work done in the classes is thoroughly criticised in special conferences by the principal and others who have attended. (7) In this manner every student is taught how to criticise not only others, but himself as well and thus he turns theory into *succum et sanguinem.*"

If we reflect that the teacher's seminaries in Germany are directed by men thus specially trained it becomes obvious that Dr. Stoy's systematic course is extended even to the lower schools.

But there can be no question that all civilized communities are reaching the conclusion that teachers of every grade should have every privilege of attaining high scholastic attainments and also the proper recognition, in the bestowal of degrees, from a certifying power able to make the title teacher a significant and worthy endowment and one not to be too easily obtained.

To those readers of this monograph that are familiar with the German language it would doubtless be interest-

ing to look at the school statistics for Austria contained in the "*Oesterreichische Statistik*" or the "*Statistik der Unterrichts-Anstalten*." The public elementary and Burgher schools,—the latter supported by corporate districts and not by the state at large,—number almost sixteen thousand with about fifty thousand teachers and two and a half million pupils. In seven thousand schools German is the language of instruction, in four thousand Czech-Slavonian, in fifteen hundred Ruthenian, in one thousand Polish, in the rest Italian, Slavonian, Servo-Croatian, Roumanian and Magyar, and in about five hundred the languages are mixed. These figures are significant.

There are in Vienna seventy public elementary schools for boys, seventy-two for girls, and twenty-four for both sexes. The attendance was seventy-five thousand in round numbers. It is notable that of the 1530 teachers 1059 are males.

The new Austrian school law referred to, took effect May 2, 1883 after a debate occupying thirteen animated sessions of the Reichsrath. The contest was over two articles, the one lessening the period of obligatory attendance and the other making public school offices open to all citizens who have obtained proper legal qualifications. It prescribes that only those teachers may be selected as principals who have also obtained a qualification to give religious instruction in the denominations to which the majority of the scholars of the schools of which they are to have charge belong, taking the average of the previous five years. In estimating this average scholars of the different evangelical creeds shall be regarded as belonging to one denomination.

This article was stubbornly fought by the Liberals and the anti-clerical press. It was passed in the upper house by a majority of three. The edition of the *Freie Pädagogische Blätter* for May 5, 1883 was confiscated by the government authorities because it contained an article reflecting on the new law.

According to the census of 1880 the Roman Catholics formed 91.35 per cent. of the total population, the Jews 4.54, the Greek orientals 2.23, the Evangelicals 1.81, and other confessions .07 per cent.

The foregoing different facts and opinions have been furnished merely as a partial reflex of the translator's mind whilst engaged in studying and discussing with others the various points of interest in this MONOGRAPH.

This beautiful gem of pedagogical description by Dr. Hannak is certainly worthy of a richer setting than the translator is able to give. It should be viewed in the full light of the history of pedagogy. To present completely the status of professional training in foreign countries alone would transcend the limits of this introduction, as it would the power of the translator. What he has written, he has written under the strong impulse of a fond hope that in every large city of his native land, there may yet be found a Hannak and a *Pädagogium* to stir the honest pride of our elementary teachers and inspire them with renewed zeal for self-development and a more complete consecration to the holy work of training a child.

The Training of Teachers in Austria.

The profession of teaching perhaps more than any other, requires for its pursuit proper and adequate training. The teacher transmits the culture of the present to the generations of the future. As this culture is conceived as constantly widening and deepening, its transmitter must keep pace with it if he would be worthy of his high calling. A proper training for teachers in higher institutions is so well provided for at present, that they may safely be passed by without consideration. In the first place, their preparation is thorough, since it is only after the completion of the entire course of eight years at a Gymnasium—or of seven years at the *Ober-Realschule*—that a student can, at about eighteen years of age, enter the University or the Technical School and there devote four or five years more to mastering the subject of his choice. This training may be made both special and very complete, since it is usual in the higher institutions of learning to assign to special teachers related groups of subjects. Moreover the *Seminaria* for philology, history and allied topics, and the physical and chemical institutes, exist at all Universities to foster the special talents of their members. At the comparatively mature age of twenty-three—sometimes twenty-five—the candidate enters the schools and undertakes instruction for the first time. For the first year he is on trial and under the supervision both of a special teacher and of the director of the school who acquaint him with school meth-

ods and discipline. Only after satisfactorily completing this year of probation, is the candidate given a permanent appointment. Any further training is left to experience. Confined to a single subject, or group of allied subjects, proficiency is gained rapidly. Marked assistance is afforded by the funds which all of the Real Schools, Gymnasia and higher special schools have for the purpose of purchasing the more expensive books of reference in the various departments of instruction and the newly devised appliances and apparatus for demonstration and instruction. There are also societies formed by the teachers of the higher or intermediate¹ schools, and their members sensibly stimulate and instruct each other by the discussion of practical educational topics and also by discourses and essays which are frequently published. Then too the Gymnasia and Real Schools publish annual reports or programmes in which are contained, besides information concerning the work and development of the institution, one or two scientific discussions on pedagogic subjects by members of the faculty. Since all the professors are in turn called upon to assist in the preparation of this programme, it acts as a spur to keep each one doing some original work in his own department, the result of which is to be promulgated when his turn comes to edit the annual publication.

Finally, the government supports two journals—the *Zeitschrift für das Gymnasialwesen* and the *Realschule*—in which original papers, official orders and documents, reviews of new books, and the discussions of questions of didactics find a place. In 1887 the societies of teachers just referred to, established a journal of their own—*Mittheilungen der Mittelschule*—which is growing rapidly in favor.

For the teachers in elementary schools, however, no

¹ In Austria the Gymnasia and Real Schools are known as Intermediate Schools.

such favorable conditions prevail as for training teachers for advanced work.²

Candidates for elementary school work come at about fifteen years of age, with a very meagre preparation—obtained either in the lower classes of the Gymnasia or Real Schools, or in the Bürger Schools, which are merely the higher classes of an elementary school with more efficient instruction—to the Training Schools, where for four years they receive both theoretical and practical preparation for their life-work. When we consider that these students must be instructed in numerous and varied subjects, and that they must be led to an apprenticeship in teaching by model and practice lessons and by criticisms on their attempts, it must be confessed that neither the time at our command nor the acquirements of the students themselves are sufficient to give them the thorough and substantial training that we desire. And this is so despite the fact that such training is not less necessary for elementary than for higher teachers—in point of fact, it is even more necessary for the former. It is in contact with the elementary school that the great masses of the population come, and it is from the elementary school teacher that the majority must get the only instruction they will ever receive. Under the circumstances it would seem that we are justified in demanding of public opinion and of the government that the elementary teachers shall have further opportunities for improvement presented to them, especially since their work begins at the early and immature age of twenty. Indeed, in Austria a movement has already been begun, and some legislation secured, for the purpose of providing a more complete and symmetrical training for the elementary teachers.

As one means of compelling the younger teachers to improve themselves a system of examinations has been

² Whatever is said of elementary school-masters is true also of elementary school-mistresses. Their privileges and duties are the same.

devised. After completing the course at the Training School and after passing the preliminary examination which admits the candidate to his profession, he must work at least two years in a public school before he is admitted to the examination which determines his fitness for general teaching. This examination is held by a special commission appointed for the purpose. By them he is examined on the best methods of teaching the subjects prescribed for the elementary schools, on the subject-matter of the curriculum itself, and on the regulations concerning school organization and discipline. For the teacher who is content to remain always in the elementary schools no examination beyond this is necessary. The majority, however, desire to secure appointments in Bürger or secondary schools, and for eligibility to these a further examination is prescribed. For this three groups of subjects are offered—the philological and historical, the scientific, and the mathematical and technical groups—and of these the candidate must choose one. He must prove to the satisfaction of his examiners that he possesses the knowledge of the subjects in the group chosen by him, necessary to enable him to teach them in the Bürger Schools, and must also be able to show that he is well posted on technical pedagogic questions. In fact he must have a good knowledge not only of pedagogy and its history, especially since the sixteenth century, but also of psychology and logic. If the examination for an elementary school certificate seems more practical than this, it must be admitted that this is of a more scientific character, while it by no means overlooks questions of method.

These examinations make it plain whether or not the teacher can give evidence of possessing any culture; but of the value and nature of this culture, and as to whether it has been gained at the Training School or by private study, the examinations can say nothing. It may fairly be said, however, that the knowledge gained at the Train-

ing School is quite sufficient to enable one to pass the examinations to teach in the elementary schools; but that of the teacher in the Bürger Schools demands are made far in excess of anything that the curriculum of the Training Colleges can satisfy. But many inducements exist, and some of them have found a place in the law, which attract the teachers to move forward in their profession and not remain content with what they have been taught at the Training School.

Unquestionably, for the teacher, as for members of any other profession, the reading of scientific and special works which bear directly on his specialty are an excellent means of improvement. As the recompense of the teacher is not sufficient to enable him to purchase for his private collection the numerous books, old and new, relating to public school teaching, a district library is provided for each school district.³

Still the funds allotted for this purpose are not sufficient to purchase all the books that are necessary; and often the distance of many of the teachers from the library is too great and the mode of administration too complicated to produce the best results.

A further means of self-improvement is afforded by the various conferences. Nearly a century ago, in the reign of Emperor Leopold II. (1790-1792), such conferences were planned; but it was not until the year 1848 that they were really in existence, and they were definitely organized by the new public school law of 1869.

There are both official conferences prescribed by law, and also such teachers' institutes as take place by the voluntary gathering together of the teachers. The official conferences comprise local, district, and provincial conferences of teachers. The local conferences take place in every school where a number of teachers are employed,

³ The Austrian crown lands are divided for public school purposes, into school districts corresponding to political divisions.

and, as a rule, they are held every month. The district conferences of the teachers are called together at least once each year by the district school board, and all the teachers of the district must appear at them. The provincial conference of teachers is called by the provincial school board, and delegates are sent to it from all the districts of the province. At these conferences the external and internal relations of the schools are discussed. Yet since at the district and the provincial conferences the wishes of the school officers receive great consideration, the strictly pedagogic and didactic subjects do not always occupy a prominent place on the programme.

There are, however, quite independently of the influence of the government, teachers' assemblies held which include either the teachers of a district, or of an entire province, or sometimes several provinces. As a rule, the societies of teachers manage these gatherings. In them there is a freer expression of opinion than in the official conferences. In the decade between 1870 and 1880 the conferences of all the teachers of the empire were adding very materially to the full discussion of school matters. Since the feeling between the two nationalities has become so intense in Austria, these gatherings have limited themselves to German teachers, and are therefore generally called "German Teachers' Gatherings."

The same means which the conferences of teachers offer for the training of teachers the teachers' societies, already mentioned, also guarantee. Their number has increased steadily since the entrance of constitutional life into Austria. One of the oldest is the society called *Volksschule*, in Vienna; the *Pädagogische Gesellschaft* in Vienna, is distinguishing itself by its important publications. In such unions, which hold their sessions frequently during the year, scientific discourses are delivered, pedagogic and didactic questions are discussed, books and means of instruction are reviewed, and sometimes newly invented

apparatus and materials for object-lessons are exhibited. If too frequent and too great stress is laid upon the mere care of special interests in these societies, they lose the value which they would otherwise possess for the improvement of their members.

One important aspect of the teachers' training is the art of instruction. We do not call pedagogy an art without reason, since for instruction as well as for education a certain finish and skill in the application of theory is requisite. This art is not to be learned from books and lectures, but through the living example. Therefore, we emphasize as an important means of education and training, the observation of the teaching of other persons, or the visitation of good schools. In this respect there is little opportunity offered to the Austrian teacher after he has entered upon the practice of his profession. Only by travel, undertaken at his own expense, can he succeed in observing many other teachers at their work. There is an exception in Vienna where the young teacher is appointed as assistant to the head-master, and as such occasionally attends his lessons.

Finally, among the plans for training teachers there is to be mentioned the Bürger-School Teachers' Course, which was called into existence by the Imperial Department of Public Instruction in the year 1886. Since the aim of the institutions for the training of teachers was lowered, especially by the innovation in the school law of the year 1883, the preparation at these institutions is not sufficient for candidates for positions in Bürger (Secondary) Schools. Therefore, in most Teachers' Training Schools, courses were established in which the teachers who desire to qualify themselves for the Bürger Schools can receive an adequate training. These are evening courses which in ten weeks' instruction each year, have to teach, first of all, what the candidate requires in one group of studies, in order to pass the examination appointed for Bürger School

certificate. Theoretical instruction stands in the foreground; only so far as practicable and as a secondary matter, are practice lessons also given in these schools.

From the shortness of the time devoted to these courses, it is natural, though not justifiable, to conclude that these are cramming schools for the Bürger School Teachers' examinations.

Over against these official and non-official arrangements for the training of teachers, which pay especial regard to one or the other side of the teachers' profession, the great city of Vienna possesses in the *Pädagogium*, an institution, which seeks to pay attention to every side of the teachers' training. This is an institution, unique of its kind, not only in Austria, but perhaps in the whole of Europe. It is true there are pedagogic seminaries at the universities in Germany; these are intended, however, for the students of the university, therefore, primarily, for candidates for the higher positions, and only in special cases can the public school teachers seek and find their training there. An institution organized exclusively with regard to the needs of the public school teachers and exclusively intended for their training does not exist outside of Vienna.

Owing to the peculiar nature of this institution a closer description will be of interest. When by the adoption of the constitution in the year 1861 public life in Austria received new dignity; men thought also of promoting public school affairs, which since the time of the French wars had made no substantial progress. Especially did the representatives of the city of Vienna concern themselves with the promotion of their public school interests. Convinced that the well-being of the public schools depends upon the culture of the teachers, they had in view as early as 1864, the establishment of a teachers' seminary. In 1866 this plan was again taken up, but so altered that not a teachers' seminary, but a Training School for Teachers was to be established. After protracted negotiations with the

government, its consent to this establishment was obtained and Dr. Frederick Dittes, director of the Gotha Seminary was called to undertake its organization. The institution organized by him received the name *Pädagogium*, and was opened in the autumn of 1868. The course comprised three years in which, besides the theoretical instruction of the students, their practical ability as teachers in the practice school was also given consideration. In general, the plan of the German Seminary was taken as a model. Still, at the *Pädagogium* there was no manner of compulsory attendance; each participant could follow the whole series of lectures and practice exercises, or he could elect to attend only single lectures. Moreover, since teachers already having had experience visited the Training School, the aim of the instruction was set higher than is the case in the German teachers' seminaries. The *Pädagogium* soon won for itself a reputation reaching far beyond the boundaries of Austria, and was frequently sought by teachers from south-eastern Europe.

In the year 1874 the organization of the Austrian Teachers' Training Schools followed. They were planned after the manner of the German seminaries. By this step the culture of the teaching profession was materially raised. Previously the Teachers' Training School embraced only a two years' course; since 1874, a four years' course. The candidates prepared at these schools have come away with fuller knowledge, clearer insight, and greater skill in school methods. The *Pädagogium* had to consider this changed state of affairs. It had placed before it, therefore, the necessity of reorganization in order to meet the wants of the more cultivated teachers now visiting it. This reorganization took place in 1881. As Dr. Dittes had resigned, Dr. Emil Hannak, director of the seminary established at Wr.-Neustadt, and previously engaged under Dr. Dittes at the *Pädagogium*, was called to the head of the institution and entrusted with the management of

the same. The reorganization took place with the coöperation of a commission from the common council of the city of Vienna.

The first point to be kept in mind was that the training of the teachers should follow two directions ; on the one hand, the teacher should improve himself in his profession, therefore, he must complete and round out his knowledge in that department in which he is engaged in teaching ; on the other hand, he should extend the foundations of his general training received at the Teachers' Training School. This first extension of his training will increase his efficiency in the school, but the second will assist greatly in his self-development, inasmuch as it extends his horizon, furnishes his mind, ennobles his nature, and forms his character. In consequence, it elevates his social standing and thus tends to increase his efficiency in office, since the more highly cultivated teacher enters upon his responsible undertaking at all events with more understanding and tact than the less cultivated.

Since the *Pädagogium* drew its attendants from the teachers who had been prepared in the Teachers' Training Schools, the plan of instruction had to be so arranged as to bring it into intimate union with that of these Schools, and to complete or extend the latter wherever gaps had been left, or where the need for completion or extension was felt. In order to have due regard to every side of the needed training, the practical development had to be separated from the theoretical. And because the aim of the instruction in one or the other direction could not be lowered but had to be considerably raised, it appeared to be necessary to increase the time for training. Therefore, two years were appointed for the course in methodology and likewise two years for the scientific course. As far as the organization of the course in methodology is concerned, besides logic, the principles of instruction, psychology and the principles of education, there are taught

general didactics and special methods in all the prescribed school subjects with the exception of religion. It is self-evident that these subjects can be taught with greater compass and penetration than is the case at the Training Schools, since, on the one hand, the culture and the maturity of the students is greater and there is also a much greater time allowed for the instruction. At least one hour per week for the whole year is allotted to each subject. Only singing, turning and sewing are restricted to one hour a week for a term. Moreover, the methods in language, in mathematics, and in drawing are divided into two courses of a year each. The first course treats of pure method, the second gives the general didactics in so far as it is dependent on the matter to be taught.

Besides the theoretical instruction in methodology, practice in teaching enters to explain and complete it. On account of the value which the observation of another's power to teach has for self-improvement, one hour weekly for visitation was designated in every annual course. The students have, therefore, the opportunity of learning to know sixteen different teachers and of observing how they treat the different subjects in the different grades. Hereby they gather material for their own practice, the value of which is certainly not to be underrated. Then following these hours of visitation come the trial lessons of the students themselves. These too are of no slight value. The established teacher is engaged in his own school in only one class, perhaps most frequently in the elementary class. He has therefore no opportunity to gain experience in teaching in higher classes. The practice at the *Pädagogium* opens up to him this possibility, and no one has yet denied that practice in any form of activity increases the quality of the work done in that form of activity. But these trial lessons are also of value to the other students in attendance. The teachers come from different institutions and bring with them varied methods of instruction.

Those who attend the practice lessons learn to know of these different ways of treating single subjects and thus have still more material which they can, with some thought, work into their own practice. If we count thirty-five trial and thirty-five model lessons, those students who regularly visit the *Pädagogium* have, not to mention the hours of visitation and instruction spent at the Teachers' Training Schools, about one hundred and forty lesson-pictures before them from which they may gain a thorough insight into the art and method of the instruction of different subjects in the different grades.

At the model and trial lessons it is evident that a discussion must follow which shall first set forth the pedagogic principles which the teachers in the practice school have followed in the model lessons; and then furnish a criticism of the practice by the colleagues of the practising teachers and such other students as were present at the practice.

After the schedule of the course in methodology was determined upon, the question arose as to the faculty that should undertake the methodology of each subject. Since the theory of methodology should stand in the most intimate contact and the most active relation with practice, and moreover, since the division of labor elevates the quality of the work, one member of the corps of teachers of both practice schools was chosen for each single subject. Theory and practice were in this manner brought into the best connection, and also each one of the teachers, since only a restricted sphere was laid out for his special study, could easily master it and easily grasp all the details that might come under his notice. The instruction proved also to be very interesting inasmuch as it could be interrupted by the exposition of separate parts and the mention of important or newly-appearing pedagogic and didactic books, and by the ensuing discussions. Although the training at the *Pädagogium* is to be its own end, yet

this methodical course as it is now organized can also serve this practical purpose, viz.: to make it much easier to pass the various examinations to test a teacher's fitness for the common schools.

As for the scientific course, it is so arranged that each subject is completed in two years. The history of pedagogy is placed exclusively in this course as a separate subject, because whatever in it is important for practical application appears in the course on methodology under the separate subjects treated. Two hours weekly are allowed each year for the history of pedagogy. In this time it is possible not only to give a view of the development of pedagogy, but also by the discussion of the development of culture in general to show the connection between the latter and pedagogy, and by the analysis of the more important pedagogic writings to arouse self-activity in the students, and to make possible an independent judgment of these works. And in addition to all this, substantial contributions are made by expositions contributed by the students, in which the results of the study of different important works in the history of pedagogy are presented.

In Language the history of German literature is treated in two parallel courses of three hours each, and in connection therewith themes taken from the literature are worked up in writing; and this again requires deeper original search into the more important works.

In Geography, general and special geography are exhaustively treated in two alternate courses of three hours weekly; and especially are mathematical and astronomical geography, which fail entirely in the Teachers' Training Schools, thoroughly canvassed. An observatory has been erected at the *Pädagogium* for the purpose of studying the heavens.

In History it is for the first time possible in this institution to discuss with adequate comprehension the practical

connection of events and the different directions of human culture. At the same time by direction to the sources and by independent reading and reference to individual original works, not only is the instruction enlivened, but also the self-activity of the students is aroused and their knowledge deepened.

The instruction in Mathematics is so divided in the two courses that in the first course is treated the knowledge required to teach mechanics, logarithms and calculations connected therewith, quadratic equations of one or more unknown quantities and the higher equations based upon quadratics, the binomial theorem, variation, permutation and combination, and probabilities; also trigonometry, and pure geometry. This large amount of material necessitated an increase in the number of hours to four weekly. There remained only two hours in the second course for stereometry, in which however trigonometry can be applied.

Natural History in each year receives three hours weekly. One year Zoölogy is taught with special emphasis to the somatology of man; the next year mineralogy is taken up with geology and botany. To this scientific course there is joined a practical one in which skeletonizing, stuffing, the preparation of animal and vegetable objects, and the determination of animals, plants and minerals are practised.

Natural Philosophy treats in the first course chemistry in two hours. In the first semester mineralogy is studied; in the second, organic chemistry, and, under physics, the general and special properties of bodies, electricity and magnetism. In the *second* course physics with mechanics, optics and acoustics are limited to two hours weekly, and in chemistry analyses and tests are made by the students in the laboratory three hours weekly.

Drawing is taught in two courses after the essential part of projection has already been passed over in the meth-

odological course. Besides the drawing of objects in perspective and in light and shade, and of heads from models, attention is given polychrome, the drawing of topographical plans and the representation of simple objects in architectural and mechanical drawings. In addition to this, two hours a week are devoted to form study consisting of modeling from ornaments, objects of nature and plastic charts.

French, the only foreign language taught at the *Pädagogium*, occupies two courses of three hours.

Besides these lectures, with which also practical exercises in the natural sciences, and written work in mathematics and the humanistic branches are connected, the *Pädagogium* offers to its students a rich library of more than two thousand works, procured with regard to the teachers' needs for improvement, numerous means of instruction and observation, apparatus and instruments which are necessary and useful for the teacher, and by an endowment which produces about three hundred dollars yearly it is in position to obtain necessary supplies from the newest that appear.

The *Pädagogium* is accordingly fitted as no other institution is to attend to the training of teachers with all the known means for the different lines of work in which they should succeed. Lectures and discourses as well as the observation of model lessons and the exercise of trial lessons, pedagogic conferences as well as original written and practical exercises in science, offer to the students the opportunity to develop themselves both practically and theoretically.

Therefore it is not to be viewed as a mere *oratio pro domo* if the author, in a pedagogic publication issued in a part of the world far from his own home, calls the attention of the friends of the schools and of culture in general to this institution, and as opportunity offers makes prominent

the necessity for the improvement of teachers; inasmuch as the progress of the profession of teaching is one of the surest guarantees of the progress of mankind in general; and it is this latter progress which all thinking men have for their ideal.

Ingersoll - Type - Writer

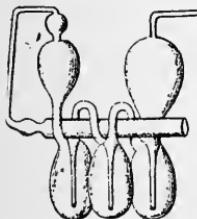
The most rapid machine this side of \$50.00. **PRICE \$3.50.**

Domestic Type Writer For children and business purposes.
Over 50,000 in use. **PRICE \$1.00.**

DOVETAIL RUBBER FONTS OF TYPE for family use in marking linen and for
business purposes. Sets up accurately. **PRICE 50 cents to \$2.00.**

Send for Catalogue and Samples

Howard S. Ingersoll, 46 Cortlandt St., N. Y.



EIMER & AMEND,
205, 207, 209, 211 THIRD AVE., NEW YORK.

Importers and Manufacturers of
CHEMICAL APPARATUS and STRICTLY CHEMICALLY
PURE CHEMICALS.

All kinds of Testing Apparatus, Reagents
and Bottles.

SPECIALTY.—Outfits for acids, chemicals and apparatus for quantitative and qualitative laboratories of Colleges, Universities and High Schools.

HAMMACHER, SCHLEMMER & CO.

Cabinet and Piano Hardware,

209 BOWERY, - - - NEW YORK.

Carry THE LARGEST ASSORTMENT of

FINE MECHANICS' TOOLS

in this country.

NEW TOOL CATALOGUE, nearly 200 pages,

just ready, will be sent prepaid on application.



THE OVERLAND MONTHLY.



The Pacific Coast, especially California, is now attracting the attention of thousands of home-seekers and capitalists. The resources, literature, and history of this vast section are fully set forth in the pages of **THE OVERLAND MONTHLY**. Its stories of Western adventure, mountaineering, Indian studies, and Pioneer sketches have become famous, and are one of the strongest features of the magazine. Its literary reviews, editorials, and poems rank with the best of corresponding Eastern work.

Among the leading features for 1889 will be:

Investment Articles ↪

By prominent Californians, on Pacific Coast Lands, Minerals, Manufactures, Leading Cities, and New Industries.

Illustrated Studies ↪

Of the Northwest and the Southwest.

Short Stories of Life ↪

In California, Oregon, Washington Territory, Arizona, etc.



\$4.00 PER YEAR.

SINGLE COPIES 35 CENTS.

SEND 25 CENTS FOR A SAMPLE COPY.

Address,

The Overland Monthly,

420 MONTGOMERY STREET,

San Francisco.

KINDERGARTEN

AND
SCHOOL
SUPPLIES } J. W.
Schermerhorn & Co.
7 EAST 14TH ST.,
NEW YORK.

GUSTAV E. STECHERT,

—IMPORTER OF—

Foreign Books and Periodicals,
828 BROADWAY, NEW YORK.

Catalogues of Second-hand Books will be sent gratis on application.

English, French and German Monthly

Bulletins of New Books.

BRANCHES: { Leipzig, Hospital Strasse 10.
(London, 26, King William St., Strand, W. C.

WOMAN'S EXCHANGE.

TEACHERS' BUREAU (For both Sexes).

Supplies Professors, Teachers, Governesses, Musicians, etc., to Colleges, Schools, Families and Churches, also Bookkeepers, Stenographers, Copyists and Cashiers to Business Firms.

Address, MRS. A. D. CULVER, 329 Fifth Avenue, New York.

MATHUSHEK PIANOS.



Before purchasing so important an article as a piano-forte, will it not be prudent for you to examine into the many merits of the **Mathushek**? It is not new; the company has been successfully in operation twenty-two years.

Nineteen Thousand Mathushek Pianos are giving constant satisfaction, and they are their own most successful advertising medium. The tone and action of the **Mathushek** are unexcelled, and their extreme durability is freely acknowledged by dealers and tuners throughout the country. The great resources, facilities and experience of the company, together with the large number of skilled workmen (many of whom have been with them over twenty years), enable them to produce an instrument that, as a whole, is unequalled. ALL PARTS, INCLUDING CASES, ACTIONS, IRON PLATES, SOUNDING-BOARDS, etc., are made by themselves in their own factory.

Catalogue, with illustrations of TWENTY different styles, *sent free* on application.

THE MATHUSHEK PIANO MFG. CO.
NEW HAVEN, CONN.

NEW YORK WAREROOMS: No. 80 Fifth Ave., 2d door below 14th St.

Alden's Manifold Cyclopedias.

Alden's Manifold Cyclopedias of Knowledge and Language is publishing in 30 or more volumes, with thousands of illustrations, Ideal Edition, about 640 pages each, Brevier type. Price per vol., cloth, **60c.** (20c); half Morocco, marbled edges, **75c.** (25c). A specimen vol. may be ordered and returned if not wanted. *Fifteen vols. now ready.* Volumes issued at intervals of about one month.

\$14.80 Price of the set of 30 vols., cloth, for cash received before May 1, 1889. **\$14.80 (\$2.80).** For half Morocco, add 15 cents a volume. **AGENTS WANTED.**

"It is a wonderfully valuable work."—*Morning Herald*, Rochester, N. Y.

"I have two encyclopedias—Chamber's and the Britannica—but for handy reference I prefer the Manifold. It is the Encyclopedia for the student, author and poor man."—D. W. HULL, Colfax, Iowa.

"A very desirable book of reference, while its cheapness places it within the reach of all who desire a good reference book."—*The Examiner*, N. Y.

"The work is marked by uniform excellence, each volume being packed with just such information on the manifold topics treated of as is ordinarily desired. The illustrations are numerous and helpful. It is what the publisher desires to make it, a Cyclopedias for the people, and it is made available to all by the extremely small price."—*Christian Intelligencer*, New York City.

Alden's Literary Cyclopedias.

Alden's Cyclopedias of Universal Literature is publishing in volumes of about 500 pages each, Ideal Edition, large type. It will be completed in not less than 15 nor more than 20 volumes, issued at short intervals. Price per volume, cloth, gilt top, **60c.** (20c); half Morocco, **70c.** (25c). A specimen volume may be ordered and returned if not wanted. *13 vols., now ready.*

\$7.50 Price of the set of 15 vols., cloth, for cash received before May 1, 1889. **\$7.50 (\$1.50).** For half Morocco, add 10 cents a volume. **AGENTS WANTED.**

"No student of literature can afford to be without this work; and to subscribe for it at once, and study each volume as it comes out, is the best way for those who have not much time or money at their disposal. There is really no reason why the lover of the best literature should not read this excellent selection steadily through from the first page to the last."—*National Baptist*, Philadelphia, Pa.

"I have received thirteen volumes of Alden's Cyclopedias of Literature, and am more than satisfied with them. I think the same amount of equally well digested information could not have been brought to my shelves from other sources for double the cost of these volumes. Both their manner and matter are excellent."—H. H. MCINTIRE, West Randolph, Vt.

"We hail with pleasure every new volume of this most unique and interesting work."—*Farm, Field and Stockman*, Chicago, Ill.

"I have received volumes XII. and XIII. of the Cyclopedias of Universal Literature, and am more and more surprised at the cheapness and thoroughness of the work. When completed, I do not think there will be its equal in the language."—MRS. LOIS J. CAMPBELL, Fairfield, Pa.

JOHN B. ALDEN, PUBLISHER,

THE ALDEN PUBLISHING CO., PROPRIETORS.

NEW YORK, 393 Pearl St.

CHICAGO, 242 Wabash Ave.

PHILADELPHIA, 13 South 9th St.

ATLANTA, 6 Whitehall St.

MARHTA'S VINEYARD SUMMER INSTITUTE.

12TH ANNUAL SESSION. BEGINNING JULY 15, 1889.

SCHOOL OF METHODS. 3 WEEKS.

1. **Arithmetic.**
GEO. I. ALDRICH, A. M., Supt. Schools, Quincy, Mass.
2. **Civil Government.**
W. A. MOWRY, Ph.D., Boston, Mass.
3. **Drawing.**
HENRY T. BAILEY, Agent Mass. Board of Education.
4. **Geography.**
MRS. MARY CATE SMITH, Boston, Mass.
5. **History.**
C. E. MELENEY, A.M., Supt. Schools, Somerville, Mass.
6. **Kindergarten.**
MISS LUCY WHEELOCK, Prin. Chauncy Hall Kindergarten, Boston.
7. **Language and Penmanship.**
I. FREEMAN HALL, Supt. Schools, Leominster, Mass.
8. **Minerals, Plants, Animals and Human Body.**
A. C. BOYDEN, A. M., Bridgewater (Mass.) Normal School.
9. **Pedagogy and History of Education.**
JAMES MCALISTER, LL. B., Supt. Schools, Philadelphia, Pa.
10. **Psychology,**
J. C. GREENOUGH, A. M., Prin. Westfield (Mass.) Normal School.
11. **Reading, Grammar School.**
HENRY L. SOUTHWICK, O. M., Sec. Monroe College of Oratory.
12. **Reading, Primary School.**
MISS NELLIE E. BOYD, Chelsea, Mass.
13. **School Management.**
A. W. EDSON, A. M. Agent Mass. Board of Education.

ACADEMIC DEPARTMENTS. 5 WEEKS.

1. **Astronomy.**
Ten Lectures. Prof. F. H. BAILEY, A. M., Boston Mass.
2. **Botany.**
Prof. EDW. S. BURGESS, A. M., Washington, D. C.
3. **Drawing.**
MISS EMMA W. BRAGDON, Boston, Mass.
4. **Elocution and Oratory.**
Four weeks. C. WESLEY EMERSON, M. D., Pres. Monroe College of Oratory, Boston, with members of the Faculty.
5. **English Literature.**
Prof. DANIEL DORCHESTER JR., A. M., Boston University.
6. **French.**
Prof. ALEX. GUILLET, A. M., Cleveland, Ohio.
7. **Geology and Mineralogy.**
Prof. THOS. J. BATTEY, A. M., Providence, R. I.
8. **German.**
Prof. J. BLACHSTEIN, Boston, Mass.
9. **History.**
W. A. MOWRY, A. M., Ph. D., Boston, Mass.
10. **Latin and Greek.**
DANA M. DUSTON, Monson Academy, Monson, Mass.
11. **Mathematics and Astronomy.**
JAMES JENKINS, Worcester, Mass.
12. **Microscopy.**
Miss ELLA M. DRURY, Natick, Mass.
13. **Music (Vocal).**
To be announced later.
14. **Music (Pianoforte).**
GEO. H. HOWARD, A. M., Boston Mass.
15. **Painting.**
Miss AMELIA M. WATSON, E. Windsor Hill, Conn.
16. **Shorthand and Typewriting.**
Mrs. MARY ALDERSON CHANDLER, Boston, Mass.
17. **Zoology.**
Wm. B. DWIGHT, A. M., Ph. B., Vassar College, Poughkeepsie, N. Y.

THE BEST LOCATION! OUT IN THE ATLANTIC OCEAN!

The Oldest School! The Greatest Advantages! The Most Thorough Course!
Combining REST and RECREATION with STUDY and IMPROVEMENT.

SEND FOR CIRCULAR.

WILLIAM A. MOWRY, President,
50 Bromfield Street, Boston, Mass.

A. W. EDSON, Manager School of Methods, Worcester, Mass.

The Prang Course of Instruction in Form and Drawing.

This course is the outgrowth of fifteen years' experience devoted to the development of this single Subject in public education, under the widest and most varied conditions.

It differs widely from all the so-called "Systems of Drawing" before the public.

The aim or object of the instruction is different.

The Methods of teaching and the Work of pupils are different.

The Models, Text-books, and materials are on an entirely different Educational plan.

The results in Schools are widely and radically different.

It is the only Course based on the use of Models and Objects and for which Models have been prepared.

The Course prepares directly for MANUAL TRAINING. Many of the exercises are in themselves elementary exercises in MANUAL TRAINING.

THE PRANG COURSE has a much wider adoption in the best schools of the country than all the "Systems of Drawing" put together.

More than *two millions* of children in public schools are being taught FORM AND DRAWING by THE PRANG COURSE.

PRANG'S NORMAL DRAWING CLASSES.

These classes have been established for giving the very best kind of instruction in Drawing through home study and by correspondence. All teachers can, through these classes, prepare themselves to teach Drawing in their schools.

 Send for Circulars in regard to PRANG'S COURSE OF INSTRUCTION IN FORM STUDY AND DRAWING, and also in regard to PRANG'S NORMAL DRAWING CLASSES. Address,

THE PRANG EDUCATIONAL COMPANY,

BOSTON.

EDUCATIONAL MONOGRAPHS

PUBLISHED BY THE

NEW YORK COLLEGE FOR THE TRAINING OF TEACHERS

NICHOLAS MURRAY BUTLER, EDITOR.

VOL. II. No. 3.

Entered at the Post Office at New York
City as second class matter.

WHOLE NO. 9.

THE TRAINING OF TEACHERS

IN

AUSTRIA

BY

E. HANNAK, Ph.D.

Director of the *Pädagogium* at Vienna.

MAY, 1889.

NEW YORK: 9 UNIVERSITY PLACE.

LONDON: THOMAS LAURIE, 28 PATERNOSTER ROW.

ISSUED BI-MONTHLY]

[\$1.00 PER ANNUM

EDUCATIONAL MONOGRAPHS

Published under the auspices of the NEW YORK COLLEGE FOR THE TRAINING OF TEACHERS, and written by the foremost Educators and Public School Workers both in this country and abroad, furnish a series of papers to teachers on the Educational Questions of the Day. The papers are concise, clear and comprehensive, especial prominence being given to the Manual Training Movement.

Six Monographs appear each year, and the subscription price is fixed at the extremely low price of \$1.00 per annum.

The following have already appeared:

- I. A Plea for the Training of the Hand, by D. C. GILMAN, LL.D., President of Johns Hopkins University. Manual Training and the Public School, by H. H. BELIEFIE, Ph.D., Director of the Chicago Manual Training School. 24 pp.
"For the student or teacher who is making a study of manual training this first number of the Educational Monograph Series is the best possible introduction to the subject." — *Science*.
- II. Education in Bavaria, by Sir PHILIP MAGNUS, Director of the City and Guilds of London Institute.
- III. Physical and Industrial Training of Criminals, by Dr. H. D. WEY, of State Reformatory, Elmira, N. Y.
- IV. Mark Hopkins Teacher, by Prof. LEVERETT W. SPRING, of Williams College.
- V. Historical Aspects of Education, by OSCAR BROWNING, M. A., of King's College, Cambridge.
- VI. The Stolid in the Service of the School, by Dr. OTTO SALOMON, Director of the Normal School at Nars, Sweden.
- VII. VIII. Manual Training in Elementary Schools for Boys, by Prof. A. SITYS of the Normal School Brussels.
- IX. The Training of Teachers in Austria, by Dr. E. HANNAK, Director of the *Pädagogium* at Vienna.

The following are nearly ready:

The Teaching of History, by Dr. EDWARD CHANNING, of Harvard University.

Objections to Manual Training, by Col. FRANCIS W. PARKER, of Cook Co. Ill., Normal School.

Extent of the Manual Training Field, by Prof. C. M. WOODWARD, of Washington University, St. Louis.

Graphic Methods in Teaching, by CHARLES BARNARD, Esq., of Chancery Lane, E. C. C.

Elementary Science in Schools, by Prof. W. LANE CARENTER, of London.

The Jewish Theory of Education, by Prof. HENRY M. LEIPZIGER, Director of the Hebrew Technical Institute.

Domestic Science in the Schools, by MRS. EMMA P. EWING, of Purdue University.

The Science of Cooking as a Factor in Public Education, by MRS. LULIA H. RICHARDS, of Mass. Institute of Technology.

Monographs will also be written by PROF. FRIEDRICH PAULSEN, of the University of Berlin; PROF. A. SAMOIS, of Paris; PRESIDENT W. P. JOHNSTON, of Tulane University; SUPERINTENDENT JAMES MACALISTER, of Philadelphia; SUPERINTENDENT JOHN L. BRADLEY, of Minneapolis; PROF. RAY GREENE HURLING, of New Bedford, and others.

Leaflets are also issued from time to time, giving information on specific educational topics. The Leaflets are sold for 1 cent each, or sent by mail on receipt of a 2-cent stamp.

Superintendents and others, or being a quantity are offered a liberal discount.

The payment of 50 cents will entitle any person to receive **all the Leaflets** that may be issued for one year. They will be sent by mail promptly as issued.

For Monographs or Leaflets address, enclosing postal note or money order, payable to the New York College for the Training of Teachers. One and two-cent stamps may also be sent.

Registrar of the College for the Training of Teachers.

9 University Place, New York City.

SEND 10 CENTS TO
POMEROY & SONS, NEWARK, N. J.

For package and postage and they'll send you by mail a sample bottle of **Jet Black Ink** or **Modern Writing Fluid** which writes a bright blue and turns black.

SEND 25 CENTS

And get by mail a large **Sponge Top Mucilage** or a **Rubber Top Bottle**, both filled with **Pomeroy's Extra Heavy Pure Gum Arabic Mucilage**.

These are the **Best** that can be had.

E. G. Soltmann

DRAWING
MATERIALS

119 Fulton Street,
NEW YORK.

New York

College for the Training of Teachers,
9 University Place, New York City.

A two-years' Course leading to the degree of Bachelor of Pedagogy.

Manual Training a Special Feature.

Courses for Special Students in Drawing, Domestic Economy, Slöjd, and the Kindergarten.

Send for Circular of Information.

ADDRESS,

Registrar of the College for
the Training of Teachers,

9 University Place, New York City.

CROSBY'S VITALIZED PHOSPHITES

From the Nerve-giving Principles of the Ox-brain and
the Embryo of the Wheat and Oat.

For twenty years has been the standard remedy with physicians who best treat nervous and mental diseases.

It aids in the bodily, and wonderfully in the mental, growth of children. There is nothing that so well develops the growth and regularity of the teeth and assures sound and wholesome teeth for after life. For the cure of nervousness and brain-fatigue, nervous dyspepsia and sleeplessness, it has been used and recommended by Bishop Potter, Bishop Stevens, President Mark Hopkins, Professor J. C. Draper, Sinclair Tousey, Bismarck, Gladstone, and thousands of the world's best brain-workers.

It is a Vital Phosphate and not a Laboratory Phosphate.

56 W. 25th St., N. Y. For sale by Druggists, or sent by mail, \$1.

Horsford's ACID PHOSPHATE,

Prepared according to the directions of Prof. E. N. HORSFORD.

Especially recommended for Dyspepsia, Nervousness, Exhaustion, Headache, Tired Brain, and all Diseases arising from Indigestion and Nerve Exhaustion.

This is not a compounded "patent medicine," but a preparation of the phosphates and phosphoric acid in the form required by the system.

It aids digestion without injury, and is a beneficial food and tonic for the brain and nerves.

It makes a delicious drink with water and sugar only, and agrees with such stimulants as are necessary to take.

Descriptive pamphlet free.

Rumford Chemical Works, Providence, R. I.

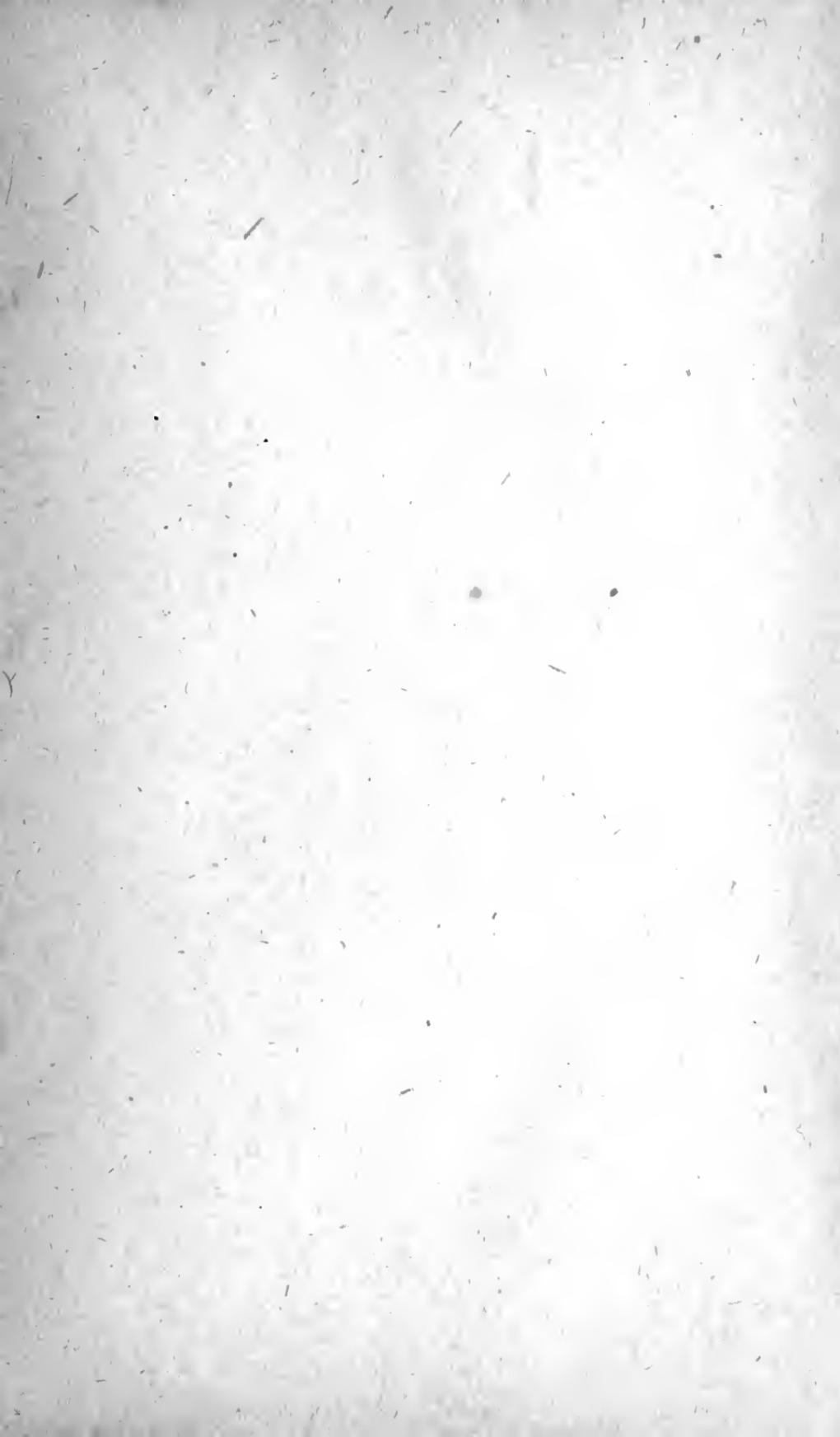
BEWARE OF SUBSTITUTES AND IMITATIONS.

CAUTION.—Be sure the word "HORSFORD'S" is printed on the label.

All others are spurious. Never sold in bulk.











LIBRARY OF CONGRESS



0 019 763 197 1